STRUCTURE OF MULTI-TIER WIRE BONDING FOR HIGH FREQUENCY INTEGRATED CIRCUIT

ABSTRACT OF THE DISCLOSURE

A multi-wire wire-bonding structure suitable for a high frequency signal comprises a first electronic device, a second electronic device, a chip pad and a plurality of metal wires. The first electronic device is attached to the second electronic device with the chip pad. As a result, the first electronic device and the second electronic device form a stair-like structure. A plurality of bonding pads comprises at least one signal bonding pad and grounded bonding pads. The signal bonding surface is surrounded by the ground bonding pads. All the bonding pads are located at the surface of the first electronic device. The chip pad carries the first electronic device and the exceeding part is a ring grounded bonding pad which surrounds the first electronic device. The second electronic device carries the chip pad and a margin of the second electronic device is exceeding the chip pad. There are several leads on the margin of the second electronic device in corresponding to the ground bonding pads and the signal bonding pad. Metal wires comprise a signal wire and grounding wires. The bonding pads of the first electronic device are classified as the first row bonding pads which is close to the ring ground bonding surface and the second row bonding pads which is away from the ring ground bonding surface. The signal wire electrically connects to the signal bonding pads and the corresponding lead. The ground wires electrically connect to the first row bonding pads and the ring ground bonding surface.